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10/660,981	09/12/2003	Kevin Moore	60046.0052US01	6124

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EXAMINER

REZA, MOHAMMAD W

ART UNIT	PAPER NUMBER
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2436

MAIL DATE	DELIVERY MODE
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10/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/660,981	Applicant(s) MOORE, KEVIN	
	Examiner MOHAMMAD W. REZA	Art Unit 2436	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to the arguments filed on 08/04/2008.
2. Claims 1-21 are pending in the application.
3. Claims 1-15, and 20-21 have been elected for examination.
4. Claims 1-15, and 20-21 have been rejected.

Response to Amendment

5. The examiner approves withdrawn of claims 16-19.
6. The examiner approves election of claims 1-15, and 20-21.

Response to Arguments

7. Applicant's election with traverse of Invention Species I in the reply filed on 08/04/2008 is acknowledged. The traversal is on the ground(s) that applicant arguments in general without pointing out the lack of previous restriction requirement that is required by MPEP 808.02. Applicant argues that the previous office actions examined the whole set of claims. This is not found persuasive because examiner could not understand why these different groups of inventions should be considered in one group while distinctly showing the different classes and sub-classes embodied with the claims limitations of the species. These independent and distinct species are required different field of search which is serious burden for examiner according to the MPEP 808.02 while distinctly showing the different classes and sub-classes embodied with the claims

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limitations of the species. So, the requirement is still deemed proper and is therefore made **FINAL**.

For purposes of the initial requirement, a serious burden on the examiner may be prima facie shown by appropriate explanation of separate classification, or separate status in the art, or a different field of search as defined in MPEP § 808.02.

As examiner mentioned in the previous office action that how all these two species are grouped in different independent and distinct inventions. Species I are presented a method for storing a security password for locking and unlocking the storage device with identifier which is locked and returning from a hardware reset/powered off state, classified in class 726, and subclass 34. Species II are dealing wherein a BIOS stored within the memory for controlling the basic input/output function of the computer and wherein the BIOS security setup utility is independent from an operating system of the computer, classified in class 713, subclass 2. Species II should be independent and distinct invention by its own class, and subclass. So, it is a serious burden for examiner to search this vast field to cover all theses different species of groups with their limitations. As a result, examiner respectfully acknowledges to the applicant that the restriction requirement is still deemed proper and **final**.

Specification

8. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: as per claim 14, and 15 “A computer controlled apparatus”

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and "a computer readable medium" does not have any support in the specification of the present application.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

9. Claims 14-15 are rejected under 35 U.S.C. 101 because the claim invention is directed to non-statutory subject matter. "A computer controlled apparatus" and "a computer readable medium" is reasonably interpreted by one of ordinary skill in the art as just software, it is a system of software, per se. As examiner could not find any

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support of “A computer controlled apparatus” and “a computer readable medium” in the specification of the present application. So, it is assumed that the function of the computer controlled apparatus and medium is just software not any hardware.

Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure’s functionality to be realized. Similarly, computer programs claimed as computer instructions per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program’s functionality to be realized. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions. So, it does not appear that a claim reciting software with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-15, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz (US patent 7,100,036) in view of Morisawa et al hereafter Morisawa (US Patent 5,537,544).

11. As per claim 1, 14, and 15 Schwartz discloses a method, apparatus, and medium comprising: reading from each of the data storage devices within the computer one or more data storage device identifiers; determining from the data storage device identifiers whether the data storage device supports the security features and is locked; in response to determining that the data storage device supports the security features and is locked, determining whether the data storage device is returning from a powered off state or a hardware reset (col. 1, lines 51-60, col. Col. 3, lines 1-36, lines 46-67, col. 4, lines 1-40, lines 50-65). Although, Schwartz discloses the data storage device is returning from the locked and powered off state. He does not expressly discloses in response to determining that the data storage device is locked and returning from a powered off state or a hardware reset, receiving from a user a password for unlocking the data storage device; in response to receiving the password, determining whether the received password is the security password; and in response to the received password being the security password, unlocking the data storage device and thereby allowing access to data stored on the data storage device. However, in the same field of endeavor, Morisawa discloses in response to determining that the data storage device

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supports the security features and is locked, determining whether the data storage device is returning from a powered off state or a hardware reset; in response to determining that the data storage device is locked and returning from a powered off state or a hardware reset, receiving from a user a password for unlocking the data storage device; in response to receiving the password, determining whether the received password is the security password; and in response to the received password being the security password, unlocking the data storage device and thereby allowing access to data stored on the data storage device (col. 3, lines 25-67, col. 4, lines 1-10, col. 6, lines 3-39, col. 8, lines 1-40, col. 17, lines 30-55).

Accordingly, it would be obvious to one of ordinary skill in the network security art at the time of invention was made to have incorporated Morisawa's teachings of receiving the password for unlocking the data storage device with the teachings of Schwartz, for the purpose of suitably using storage device identifier to determine that the storage device status locked and supported the security features.

12. As per claim 2, Schwartz discloses the method wherein the method is implemented during a power on test procedure of the computer hosting the data storage devices (col. Col. 3, lines 1-36, lines 46-67, col. 4, lines 1-40).

13. As per claim 3, Schwartz discloses in response to the received password not being the security password, determining whether limited access should be provided to each locked data storage device (col. 1, lines 51-60, col. Col. 3, lines 1-36, lines 46-67. Schwartz does not disclose wherein; in response to determining that limited access should be provided, setting a bit corresponding to each locked data storage device to

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exclude the locked data storage device from detection verification during a power on test procedure; and in response to determining that limited access should not be provided to each locked data storage device, isolating each locked data storage device from the operating system. However, Morisawa discloses wherein; in response to determining that limited access should be provided, setting a bit corresponding to each locked data storage device to exclude the locked data storage device from detection verification during a power on test procedure; and in response to determining that limited access should not be provided to each locked data storage device, isolating each locked data storage device from the operating system (col. 4, lines 1-10, col. 6, lines 3-39, col. 8, lines 1-40, col. 17, lines 30-55).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 3.

14. As per claim 4, Schwartz discloses the method wherein limited access comprises prohibiting reading from or writing to the locked data storage device (Col. 3, lines 1-36, lines 46-67, col. 4, lines 1-40).

15. As per claim 5, Schwartz discloses the method wherein in response to the received password being the security password, determining whether a data storage device returning from a sleep state should be unlocked without requiring a user to enter a password (col. 1, lines 51-60, col. Col. 3, lines 1-36, lines 46-67). Schwartz does not disclose in response to determining that the data storage device should be unlocked without requiring a user to enter a password, storing the security password within a memory located outside the data storage device. However, Morisawa discloses in

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response to determining that the data storage device should be unlocked without requiring a user to enter a password, storing the security password within a memory located outside the data storage device (col. 4, lines 1-10, col. 6, lines 3-39, col. 8, lines 1-40, col. 17, lines 30-55).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 5.

16. As per claim 6, Schwartz discloses the method wherein in response to determining that the data storage device is locked, determining whether the data storage device is returning from a powered off sleep state; in response to the data storage device being locked and returning from a powered off sleep state, determining whether the data storage device was unlocked prior to the sleep state; in response to determining that the data storage device was unlocked prior to the sleep state, determining whether a data storage device returning from a sleep state should be unlocked without requiring a user to enter a password (col. 1, lines 51-60, col. Col. 3, lines 1-36, lines 46-67). Schwartz does not disclose in response to determining that the data storage device should be unlocked without requiring a user to enter a password, retrieving the security password from the memory and utilizing the security password to unlock the data storage device. However, Morisawa discloses in response to determining that the data storage device should be unlocked without requiring a user to enter a password, retrieving the security password from the memory and utilizing the security password to unlock the data storage device (col. 4, lines 1-10, col. 6, lines 3-39, col. 8, lines 1-40, col. 17, lines 30-55).

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The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 6.

17. As per claim 7, Schwartz discloses the method wherein the security password is stored within the memory in an encrypted format (col. 1, lines 51-60, col. Col. 3, lines 1-36, lines 46-67).

18. As per claim 8, Schwartz discloses the method wherein in response to determining that the data storage device should be unlocked after returning from a sleep state by requiring a user to enter a password, receiving the security password from a user and utilizing the security password to unlock the 19. As per claim 9, Schwartz discloses the method wherein in response to determining that the data storage device is unlocked, determining whether a security password has been enabled; and in response to determining that the data storage device is unlocked and that no security password is enabled for the data storage device, disabling, until a next power cycle, the security features that enable security passwords (col. 1, lines 51-60, col. Col. 3, lines 1-36, lines 46-67).

20. As per claim 10, Schwartz discloses the method wherein in response to the data storage device being locked and returning from a powered off state or a hardware reset, determining whether a backup password may be used to unlock the data storage device; in response to determining that a backup password may be used, determining whether a request to enter a backup password has been received (Col. 3, lines 1-36, lines 46-67, col. 4, lines 1-40, lines 50-65); in response to receiving a request to enter a backup password, receiving from a user a password for unlocking the data storage

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device; and in response to the received password being the backup password, unlocking the data storage device and thereby allowing access to data stored on the data storage device (col. 1, lines 51-60, col. Col. 3, lines 1-36, lines 46-67).

21. As per claim 11, Schwartz discloses the method wherein in response to the received password being the backup password, determining whether a maximum security is supported by the security features; and in response to the received password being the backup password and the maximum security being supported, erasing the data storage device before unlocking the data storage device (Col. 3, lines 1-36, lines 46-67, col. 4, lines 1-40, lines 50-65).

22. As per claim 12, Schwartz discloses the method in response to determining that the password is not the security password, determining whether the password entry attempt counter is equal to zero (Col. 3, lines 1-36, lines 46-67, col. 4, lines 1-40, lines 50-65); in response to the password entry attempt counter being greater than zero, decrementing the password entry attempt counter by one and again receiving a password from a user; and in response to the password entry attempt counter equaling zero, prohibiting additional password entries until a next power cycle and displaying a message that the data storage device remains locked (col. 1, lines 51-60, col. Col. 3, lines 1-36, lines 46-67).

23. As per claim 13, Schwartz discloses the method wherein executing a setup utility within the basic input/output system operative to control one or more functions for manipulating at least one of a security password and a backup password for a data storage device supporting the security features wherein the functions are accessed by

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one of entering the security password when prompted by the setup utility and selecting the data storage device in the setup utility when said data storage device is unlocked (Col. 3, lines 1-36, lines 46-67, col. 4, lines 1-40, lines 50-65).

24. As per claim 20, Schwartz discloses a method comprising: in response to determining that the data storage device is locked, determining whether the data storage device is returning from a sleep state; in response to the data storage device being locked and returning from a sleep state, determining whether the data storage device was unlocked prior to the sleep state; and in response to determining that the data storage device was unlocked prior to the sleep state, retrieving the security password from the memory and utilizing the security password to unlock the data storage device (col. 1, lines 51-60, col. Col. 3, lines 1-36, lines 46-67, col. 4, lines 1-40, lines 50-65). Although, Schwartz discloses the data storage device retrieving the security password from memory. He does not expressly discloses storing a security password within a memory located within the computer, but outside the data storage device; in response to determining that the data storage device was unlocked prior to the sleep state, retrieving the security password from the memory and utilizing the security password to unlock the data storage device (col. 3, lines 25-67, col. 4, lines 1-10, col. 6, lines 3-39, col. 8, lines 1-40, col. 17, lines 30-55).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 20.

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25. As per claim 21, Schwartz discloses the method wherein the security password is stored within the memory in an encrypted format (Col. 3, lines 1-36, lines 46-67, col. 4, lines 1-40, lines 50-65).

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad w. Reza whose telephone number is 571-272-6590. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MOAZZAMI NASSER G can be reached on (571)272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Nasser G Moazzami/

Supervisory Patent Examiner, Art Unit 2436

/Mohammad W Reza/

Examiner, Art Unit 2436

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